CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Improvement Request – Lease – Bison Fence
Proposed Implementation Date:	Fall 2011
Proponent:	Diamond 4 D Ranch LLC, 521 Park Ave. #6, New York City, New York 10065 Diamond 4 D Ranch LLC, PO Box 857, Choteau, MT 59422
Location:	Sections 19, 20, T23N, R7W Sections 24, 25, 27, 28, 35,36, T23N, R8W Sections 1,13, T22N, R8W
County:	Teton

I. TYPE AND PURPOSE OF ACTION

Diamond 4 D Ranch LLC, has requested to construct approximately 8 miles of border and interior pasture fence graze bison on its State leases. The proposed fence design would be a 5-strand standard fence with a 20" bottom wire height and a 48" top wire height with wooden support posts at 16' centers. The bottom wire would be a non-electric high tensile smooth wirer. Above the bottom wire would be 3 strands of barbed wire and one high tensile electric smooth wire located 36" above the ground. In large the proposed fence will be replacing existing border and cross fences and would allow the lessee to adequately secure its ranch boundary and develop pastures for a grazing system. Please reference the attached map for fence locations and a dawning the depicts the general fence design.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:
Provide a brief chronology of the scoping and ongoing involvement for this project.

Surface Lessee, Diamond 4 D LLC
Montana FWP, Brent Lonner, Wildlife Biologist
Adjacent landowners

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

None

3. ALTERNATIVES CONSIDERED:

Alternative A: The DNRC would allow the construction and reconstruction of approximately 8 miles of border and interior pasture fence.

Alternative B: No Action Alternative. The DNRC would not allow the construction and reconstruction of approximately 8 miles of border and interior pasture fence

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:
Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

The soil types and topography are generally suitable for the placement of this type of fence. No cumulative effects to the soils are anticipated.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:
Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

None.

6. AIR QUALITY:
What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

None.

7. VEGETATION COVER, QUANTITY AND QUALITY:
What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

The plant species comprising the existing communities have evolved under a regime where grazing by ungulates were present. The existing land use of grazing would continue and the number of AUMs would remain the same. The interior fences would allow the lessee to improve grazing management on the ranch. Vegetation will be minimally impacted along the corridor where the fence will be built. Noxious and annual weeds within the proposed construction area are not a concern because no ground disturbing activities are planned. Cumulative impacts on the vegetative resources are not expected due to the small amount of soil disturbance caused by placing a fence post.

A review of Natural Heritage data through the NRIS was conducted and there were no plant species of concern noted or potential species of concern noted on the NRIS survey.

No significant impacts are anticipated.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:
Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

A variety of big game, small mammals, raptors, and songbirds use this area. The proposed project area is used by elk, mule deer antelope, black bear, and grizzly bear. Elk and mule deer use this area as winter range. The primary time of use for elk and mule deer is from early December to early May. Concerns were expressed that the proposed fence design would present a barrier to wildlife movement through the proposed project area.

Several factors, including Montana's Livestock Containment Laws (81-4-201MCA) and the disposition of bison and their ability to jump what they can see over, necessitate construction of specialized fencing.

FWP was consulted by the lessee regarding the construction of this fence. FWP wildlife biologist Brent Lonner did provide comments and helped the lessee design a fence that would contain bison and minimize impact to wildlife. DNRC consulted with FWP on this project as it relates to state land and FWP did not provide any written comments. However, in a telephone conversation with Mr. Lonner, FWP did not have major concerns with the fence as it allows for general movements of wildlife. He did suggest that wood "H' braces be used at regular intervals to allow elk to cross. His experience on the Sun River Game Range (located 10 miles south) indicates that elk, and to a lessor degree mule deer, follow fences until they see the wooden "H" braces and then safely jump across.

The proposed fence is designed to allow wildlife movement with the lowest wire 20" (smooth wire, non-electric) above ground level to allow antelope and bear passage. A 12" gap between the third and top wire to minimize the possibility of animals becoming entangled when jumping over the fence, and the top wire at 48" (barbed wire, non-electric) above ground level to allow deer and elk to be able to jump over the fence, particularly where wooden H braces are placed. Sixteen-foot gates would be located along the fence. The gates would remain closed when the pastures are occupied. There will also be wood "H" braces installed at regular intervals to allow for elk and deer crossings.

The presence of the proposed fence may cause hesitation, but is not a barrier to wildlife movement. Elk and deer can and do cross fences of this type and height, and they can go over fences that are higher, as can other game species. The proposed fence design appears reasonable in its ability to both contain bison and allow the passage of wildlife species. Minimal impacts are anticipated.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:
Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

This parcel is located in the NCD grizzly bear recovery zone and occupied grizzly bear zone. Bears can easily crawl through the proposed fence by staying below the electric high tensile wire at 36". Pastures will not be electrified when not in use.

A review of Natural Heritage data through the NRIS was conducted. There were nine animal species of concern and zero potential species of concern noted on the NRIS survey: Mammals-Gray Wolf, Wolverine, Canada Lynx, Fisher, and Grizzly Bear. Birds—Bald Eagle, Golden Eagle, and Clarks Nutcracker. Bats – Hoary Bat, Fringed Myotis, Fish-Westslope Cutthroat Trout, Yellowstone Cutthroat Trout, and Arctic Grayling.

This project is not expected to impact any of the above stated species. Therefore, threatened or endangered species, sensitive habitat types, or other species of special concern or potential species of concern will not be impacted by the proposed fencing project.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:
Identify and determine effects to historical, archaeological or paleontological resources.

There would be no ground leveling or other surface disturbances associated with the proposed project, and as such, the DNRC archaeologist stated there should be no cultural resource concerns. No significant impacts are anticipated.

11. AESTHETICS:
Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

Visible changes would include 8 miles of new fencing. No significant impacts are anticipated.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:
Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

None.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:
List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

None

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:
Identify any health and safety risks posed by the project.

There is potential for conflict between the proposed bison grazing, bison fencing and future recreational use in the proposed project area. The level of conflict or danger would vary depending on the time of year and the class of bison that were present. In general, a herd of young non-breeding age bison would likely pose little threat to a recreational user afoot. When approached by a person afoot, bison of this age class tend to flee.

Though they are still somewhat timid and will often flee, older bison do tend to be more unpredictable and aggressive, particularly when cornered or when approached too closely. This is particularly true of adult bulls during the breeding season. Additionally, cow bison are relatively protective of their young calves. Bison are also relatively fleet and can run at speeds up to 35 miles per hour. The combination

of speed and unpredictability can pose a real hazard to a recreational user who might venture too near a mixed herd of mature bison at breeding time, or too near a young calf separated from its mother cow.

Also affecting the situation is the relative familiarity of the bison to the presence of humans in their midst and on foot. If animals, bison included, are not accustomed to humans afoot, then they will be more inclined to flee when presented with that set of circumstances. Conversely, animals that become accustomed to the presence of man, tend to lose fear and can pose more of a hazard or risk under some circumstances.

There is also a potential for conflict between recreational users on horseback who may approach bison too closely. Bison are defensive of the area they occupy and are intolerant of other species that approach within too close a range (50 feet). Also, from a perspective of the ladder of social dominance, bison are dominant over horses. This combination of factors may lead to bison charging riders on horseback who may venture too closely to them. To minimize risk of conflict, riders should keep a safe distance from bison and keep alert when in the proximity of the animals.

Though there may be individuals seeking recreational pursuits on the premises at any time during the year, the majority of recreational use is expected to occur from early September through late November. These dates envelop opening day of the many hunting seasons and closure of the general big game hunting season. During most of this time frame recreational use is expected to be relatively light. Use levels are expected to peak during the last month and a half, which corresponds to the general big game hunting season.

Concerns were expressed that the proposed fence design would not be capable of containing the bison within the proposed project area and the bison may wander onto and trespass on adjacent ownerships. Several factors, including Montana's Livestock Containment Laws (81-4-201MCA) and the disposition of bison and their ability to jump what they can see over, necessitate construction of specialized fencing.

It is not realistic to expect that no bison escapes would occur over time. Any damage resulting from escaped bison would be covered under State civil law 81-4-103MCA and 81-4-201MCA. The proposed fence design appears reasonable in its ability to both contain bison and allow the passage of wildlife species.

Because of the possibility of noted conflicts, steps such as adequate signing, which has proven effective in similar situations, and other future mitigation actions may be deemed necessary to address concerns regarding public safety and property damage. Minimal impacts are expected.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

The proposed fence would allow for the Lessee to adequately secure bison on state leases. The AUMs on the existing grazing lease would remain the same. No impacts are expected.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

The project would possibly create temporary additional revenue and work for a local firm or firms to supply materials, construct, and reconstruct the proposed fencing.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:
Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

None.

18. DEMAND FOR GOVERNMENT SERVICES:
Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services.

None.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:
List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

The DNRC Administrative Rules for State Land Leasing ARM 36.25.101 through 36.25.141.

Montana's Livestock Containment Laws (81-4-201MCA) which states *"It is unlawful for an owner or person in control of swine, sheep, llamas, alpacas, bison, ostriches, rheas, emus, or goats to willfully permit the animals to run at large."*

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

Please see **Number 14. Human Health and Safety** of this Environmental Assessment.

The project area is a mixture of private and state land, where private lands and none of the state land within the proposed fence boundary are not open to public hunting. State Lands on this ranch are smaller blocks and scattered. State parcels within the fence boundary are not accessible to the public. Other general recreational use such as hiking and fishing is not expected to be impacted. The proposed action is not expected to impact general recreational activities on the state tracts in the long-term. However, because of the possibility of noted conflicts, steps such as adequate signing, which has proven effective in similar situations, and other future mitigation actions may be deemed necessary to address concerns regarding public safety and property damage. Minimal impacts are expected.

BLM and Forest Service lands along the western ranch border will not be fenced due to dense timber and steep terrain. This area contains natural barriers to prevent the movement of livestock to the west. Therefore, access to federal lands (both BLM and Forest Service) will not be impacted by the project.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:
Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

None.

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

None.

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

None

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:
Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

The proposed action would not generate any additional revenue for the Trust. The grazing AUMs and lease revenues would remain the same.

EA Checklist Prepared By:	**Name:**	Erik Eneboe	**Date:**	Sept. 30, 2011
	Title:	Conrad Unit Manager		

V. FINDING

25. ALTERNATIVE SELECTED:

Alternative A, allow the construction of approximately 8 miles of new 5-strand border and interior pasture fence

Mitigations:

-Proper signing at entry points to signify the presence of bison and electric fence.

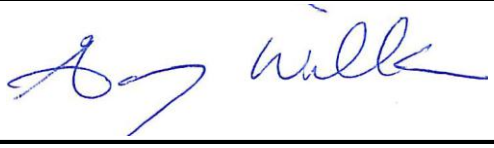
-Installation of wooden H" braces at regular interval to allow of the movement of elk.

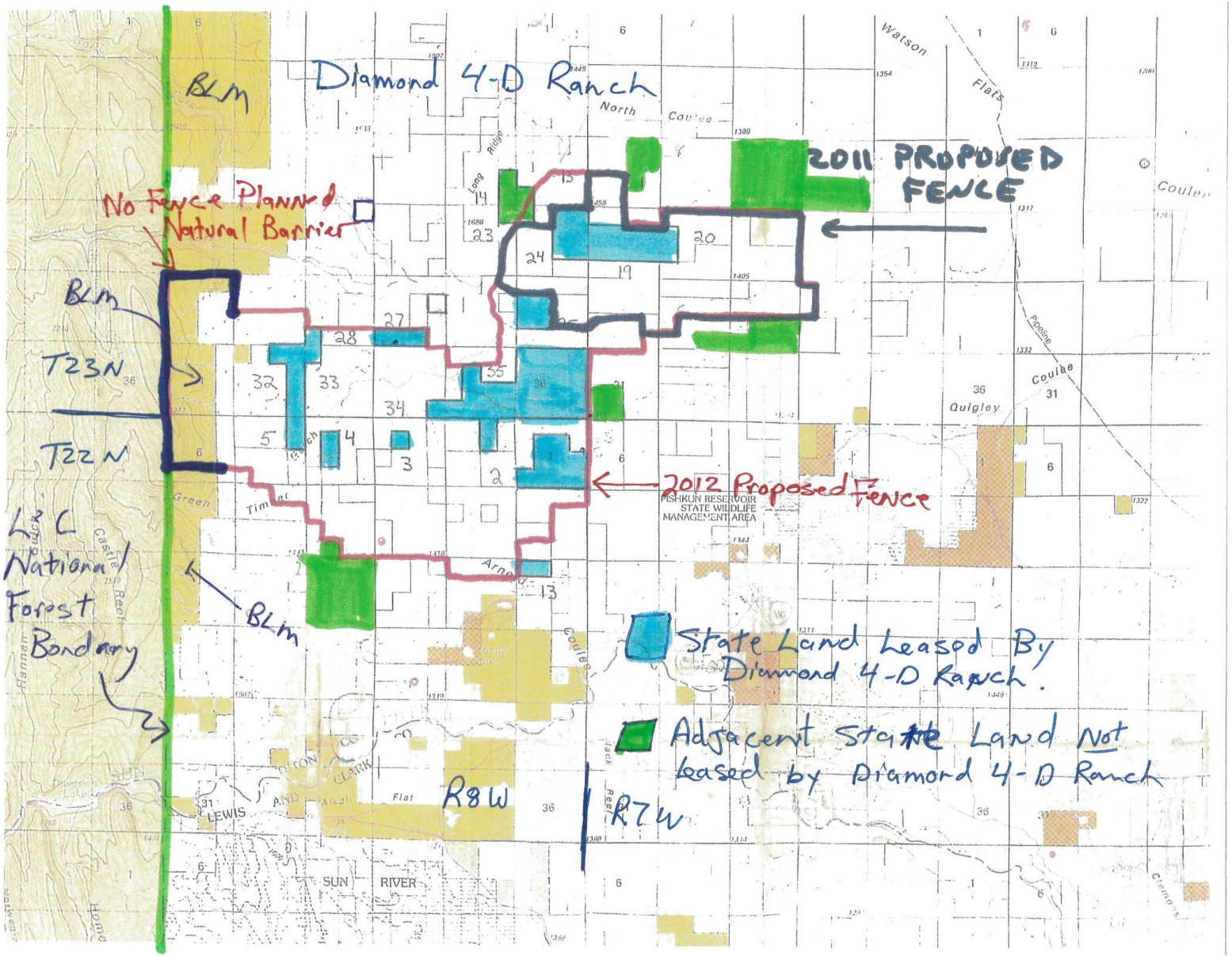
26. SIGNIFICANCE OF POTENTIAL IMPACTS:

Significant impacts are not anticipated as result of the proposed action. The proposed fence will replace existing non functioning fence lines. State lands enclosed by the proposed fence are not legally accessible by the public for recreational purposes. The proposed fence was designed in consideration of wildlife travel issues and while it may create some hesitancy in wildlife is not likely to prevent wildlife crossings.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

[ ]	EIS	[ ]	More Detailed EA	[X]	No Further Analysis

EA Checklist Approved By:	**Name:**	Garry Williams
	Title:	CLO Area Manager
Signature: 	**Date**:	10/18/11



July 19, 2011

Diamond 4 D, LLC.
Chris Bechtold, Manager
P.O. Box 857
Choteau, MT 59422

MT Dept. of Natural Resources and Conservation
Conrad Field Office
Attn: Eric Eneboe
P.O. Box 961
Conrad, MT 59425

Subject: Ranch Boundary Fence Improvements Request

Eric:

Summer is progressing rapidly and with it, the season for completing our fence projects. In the past, we have talked of establishing a document for pre-approval of ranch boundary fences to negate the need for you to check each segment of fence that we propose building in the coming 3 to 4 years. Since that time, I have refined the fence design and come to a definitive fence structure. My research on differing fence models has included conversations with Brent Lonner, regional MT FW&P biologist, Danny Johnson, Turner Enterprises Ranch Manger, National Bison Association members, and many publications on wildlife / fence issues, including those put out by the state of Montana. My final design, which is included in this proposal, balances the needs of both wildlife and livestock.

As you can see from the attachment, the fence will be constructed on 16 ft. wood post centers and the ends will be constructed of "H" braces with steel cross pieces to add longevity to the fence. I propose a 4 strand fence with an offset electric wire. The top three wires will be barbed with the highest strand at 48" and the bottom smooth wire at 20". The middle wires will be spaced at 28" and 36" with the offset electrified wire located at 36" on the off side of the posts.

I feel this fence will provide adequate insurance that our livestock will not range outside our borders and still allow wildlife the opportunity to pass under or over the fence with minimal difficulty. It is our goal as a ranch to do all we can to improve wildlife habitat and increase opportunities for as many wildlife species as we can while still maintaining an agrarian lifestyle. We hope to work in partnership with the state of Montana to achieve these goals.

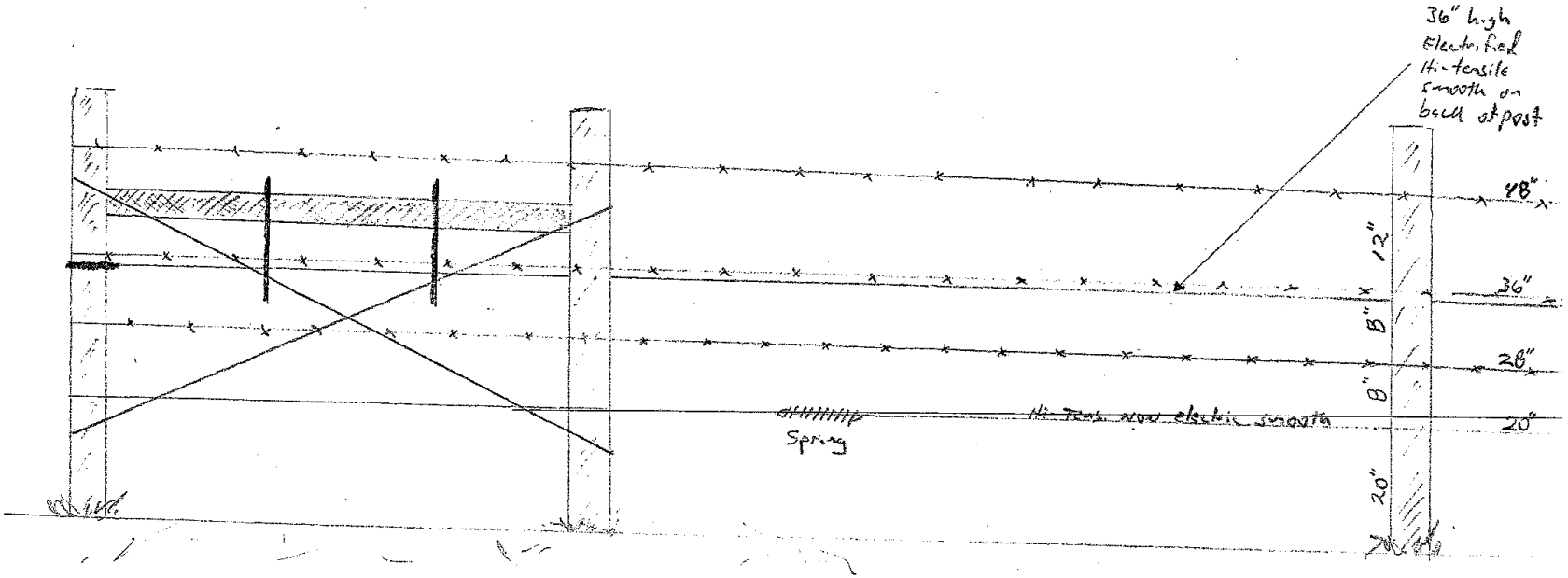
Please let me know what other information you may need to allow this proposal to proceed at a timely pace. Once again, thank you for your time and consideration in our myriad projects involving DNRC.

Sincerely,

Chris Bechtold

11/20/2014

Diamond 4 D, LLC. Boundary Fence Design



Standard Boundary Fence Material Costs Estimate
July 19, 2011

Costs assume the following: Posts driven at 16' centers, three strands barbed, bottom Strand high tensile smooth set at 20" and offset high Tensile electric set at 36". Double 8' braces at ends And gates with steel cross piece. One wire gate included Per mile.

Costs:	*# per mile*	*per mile cost*
4 ½ " x 6 ½' treated drive posts (5.45 ea.)	320	1744.00
7"x8' blunt brace posts (20.45)	18	368.10
4 ½"x 8' steel cross brace 2 7/8" dia. (13.16)	12	157.92
3"x16' rail for gate sticks (8.25	1	8.25
Red Brand Premium 2 Point wire (71.50 per ¼ mi)	12	858.00
12.5 ga. Hi-tensile smooth wire (105.00 per ½ mi)	4	420.00
Commercial grade smooth brace wire (56.00 roll)	¼	14.00
Bekaert barbed 1 ¾" staples (14.99 per 8 lbs.)	50 lbs.	93.68
Spring for bottom smooth wire (7.50)	8	60.00
Tensioner for bottom smooth wire (3.75)	8	30.00
Wrap around insulators 20" (1.05)	10	10.50
4" fin tube insulators (.18 ea)	320	57.60
steel gate latch (16.00)	1	16.00

TOTAL Material Per Mile Costs $3,838.05
Labor *not* included

Brent Lonner 467-2488

- Border
- Bison Section 19
  Stela